10/561,319 Case 21444YP

Case No.: Page No.:

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

 $1. \qquad \hbox{\bf (currently\ amended)}\ A\ compound\ of\ formula\ I\ and\ pharmaceutically\ acceptable\ salts\ thereof:}$

$$\begin{array}{c|c} O & Z=Z & \mathbb{R}^d \\ O & X & X & \mathbb{R}^{1a} \\ X & X & X & \mathbb{R}^{1b} \end{array}$$

wherein

A is D is O, CO, S, NRd, or CRbRc;

COR4, C(O)NRdR4, C(O)OR4, SO2R42, SO2NRdR4;

X, Y and Z are independently a ring carbon atom or a ring nitrogen atom, with the proviso that 0-3 X, 0-3 Y and 0-3 Z are ring nitrogen atoms;

R^{1a} and R^{1b} are independently selected from (1) H, (2) halogen, (3) C₁-6alkyl optionally substituted with 1-5 groups independently selected from halogen, nitro, cyano, CORa, CO₂Ra, C(O)NRdRe, ORa, OC(O)Ra, SRa, SO₂Rf, S(O)Rf, NRdRe, NRdC(O)Ra and NRdSO₂Rf, (4) C(O)Ra, (5) CO₂Ra, (6) C(O)NRdRe, (7) ORa, (8) OC(O)Ra, (9) OC(O)NRdRe, (10) NRdRe, (11) NRdC(O)Ra, (12) NRdC(O)ORa, (13) NRdC(O)NRdRe, (14) NRdSO₂Rf, (15) SRa, (16) S(O)Rf, (17) SO₂Rf, (18) SO₂NRdRe, (19) CN, (20) NO₂, (21) optionally substituted aryl, (22) optionally substituted heteroaryl, (23) optionally substituted heteroaryl-C₁-6alkyl, and (26) optionally substituted heterocyclyl-C₁-6alkyl; wherein the substituents for aryl, heteroaryl, heterocyclyl, aralkyl, heteroaralkyl and heterocyclylalkyl are 1 to 3 groups independently selected from halogen, cyano, nitro, ORa, NRdRe, NRdC(O)Ra, NRdSO₂Rf, OC(O)Ra, NRdC(O)₂Ra, SRa,

Serial No.: 10/561,319 Case No.: Case 21444YP

Page No.: 5

 SO_2R^f , oxo (for heterocyclyl and heterocyclylalkyl), $C(O)R^a$, $C(O)_2R^a$, C_{1-4} alkyloxy, aryl, aryl- C_{1-4} alkyl, heteroaryl, heteroaryl- C_{1-4} alkyl, C_{3-6} cycloalkyl and C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms, or

R1a, R1b and adjacent carbon atoms to which they are attached together form a saturated, partially unsaturated or aromatic 5- or 6-membered ring containing 0 to 2 heteroatoms selected from N. N-Rg, O and S:

R^{2a} and R^{3a} are independently selected from (1) H, (2) halogen, (3) OR^a, (4) NRdR^e, (5) CN, (6) NO₂, (7) CO₂R^a, (8) COR^a, and (9) C₁₋₄ alkyl optionally substituted with 1 to 5 halogen atoms

R4 is selected from (1) C1-6alkyl substituted with 1 to 5 halogen atoms, ORa, NRdRe or C(O)NRdRe in which, for these two occurrences, Rd and Re together complete a 4- to 8membered ring optionally containing an additional heteroatom selected from NRg, O. S. and SO2, and said ring being optionally fused to a benzene or a 5- or 6-membered heteraromatic ring, and optionally substituted with 1 to 3 substituents independently selected from halogen, cyano, nitro, ORg. oxo, C3-6 cycloalkyl, aryl, heteroaryl, NRgRg, NRgCORg, NRgCO2Rg and C1-4 alkyl optionally substituted with 1 to 5 halogen atoms; (2) optionally substituted heteroaryl; (3) optionally substituted heteroaryl-C1-4alkyl; (4) optionally substituted heterocyclyl; (4) optionally substituted heterocyclyl-C1-4alkyl; wherein the substituents for heteroaryl, heteroaralkyl, heterocyclyl and heterocyclylalkyl are 1 to 3 groups independently selected from halogen, cyano, nitro, ORa, NRdRe, NRdC(O)Ra, NRdSO2Rf, OC(O)Ra, NRdC(O)2Ra, SRa, SO2Rf, oxo (for heterocyclyl and heterocyclylalkyl), C(O)Ra, C(O)2Ra, C1-4 alkyloxy, aryl, aryl-C1-4alkyl, heteroaryl, heteroaryl-C1-4alkyl, C3-6 cycloalkyl and C1-4 alkyl optionally substituted with 1 to 5 halogen atoms(1) H, (2) C1_6alkyl optionally substituted with 1 to 5 groups independently selected from halogen, nitro, eyano, C3_6eyeloalkyl, CORe, CO2Re, C(O)NRdRe, ORe, OC(O)Ro, SRo, SO2Rf, S(O)Rf, NRdRo, NRdC(O)Ro, NRdSO2Rf, and NRdC(O)2Ro, (3) optionally substituted C2_6eyeloalkyl, (4) COR#, (5) COOR#, (6) optionally substituted aryl, (7) optionally substituted heteroaryl, (8) optionally substituted heterocyclyl, (9) optionally substituted aryl-C1_6alkyl, (10) optionally substituted heteroaryl-C1_6alkyl, and (11) optionally substituted heterocyclyl-C1_6alkyl; wherein the substituents for cycloalkyl, aryl, heteroaryl, heteroevelyl, gralkyl, heterogralkyl and heteroevelylalkyl are 1 to 3 groups independently selected from halogen, evano, nitro, ORa, NRdRe, NRdC(O)Ra, NRdSO2Rf, OC(O)Ra, NRdC(O)2Ra, SRa, SO2Rf, oxo (for heterocyclyl and heterocyclylalkyl), C(O)Ra, C(O)2Ra, C1_4 alkyloxy, aryl

Serial No.: 10/2 Case No.: Cas Page No.: 6

10/561,319 Case 21444YP

optionally substituted with 1 or 2 halogen atoms, aryl-C₁_4alkyl, heteroaryl, heteroaryl-C₁_4alkyl, C₃_6-cycloalkyl and C₁_4-alkyl optionally substituted with 1 to 5 halogen atoms; R^{4*} is a group selected from R⁴ except R^{4*} is not H; Ra is (1) H, (2) C₁_6 alkyl optionally substituted with 1 to 5 groups independently selected fi

Ra is (1) H, (2) C₁₋₆ alkyl optionally substituted with 1 to 5 groups independently selected from halogen, cyano, nitro, OH, C₁₋₄ alkyloxy and C₃₋₆ cycloalkyl, (3) C₃₋₆ cycloalkyl, (4) optionally substituted aryl, (5) optionally substituted heterocyclyl, (7) optionally substituted aryl-C₁₋₆ alkyl, (8) optionally substituted heterocyclyl, and (9) optionally substituted heterocyclyl-C₁₋₆ alkyl, wherein the substitutents for aryl, heteroaryl, heteroaryl, heteroarylyl, heteroaralkyl and heterocyclylalkyl are 1 to 3 groups independently selected from halogen, cyano, nitro, ORg, NRdRe, NRdC(O)Rg, NRdSO₂Rf, OC(O)Rg, NRdC(O)2Rg, SRg, SO₂Rf, oxo (for heterocyclyl and heterocyclylalkyl), C(O)Rga, C(O)2Rg, C₁₋₄ alkyloxy, aryl, aryl-C₁₋₄ alkyl, heteroaryl, heteroaryl-C₁₋₄ alkyl, C₃₋₆ cycloalkyl and C₁₋₄ alkyl optionally substituted with 1 to 5 halogen atoms;

 R^b and R^c are independently selected from H, halogen, or C_{1-4} alkyl optionally substituted with 1 to 5 halogen atoms;

Rd and Re are independently selected from (1) H, (2) C₁-4alkyl, optionally substituted with 1 to 5 groups independently selected from halogen, amino, mono-C₁-4alkylamino, di-C₁-4alkylamino, and SO₂Rf, (3) aryl-C₁-6alkyl optionally substituted with 1 to 3 groups selected from halogen, cyano, nitro, OH, C₁-4 alkyloxy, C₃-6 cycloalkyl and C₁-4 alkyl optionally substituted with 1 to 5 halogen atoms, (4) heteroaryl-C₁-6alkyl optionally substituted with 1 to 5 halogen atoms, (4) heteroaryl-C₁-6alkyl optionally substituted with 1 to 5 halogen atoms, and (5) C₃-6 cycloalkyl, or Rd and Re, or Rd and Rd, er-Rd and Rd⁴; together with the atom or atoms to which they are attached, complete a 4- to 8-membered saturated, partially saturated or aromatic ring optionally containing 1 to 3 heteroatoms independently selected from N, NRB, O, S, and SO₂, and said ring being optionally fused to a benzene or a 5- or 6-membered heteraromatic ring, and optionally substituted with 1 to 3 substitutents independently selected from halogen, cyano, nitro, ORB, oxo, C₃-6 cycloalkyl, aryl, aryl-C₁-4alkyl, heteroaryl, NRBRB, NRBCORB, NRBCO₂RB and C₁-4 alkyl optionally substituted with 1 to 5 halogen atoms, (2) C₁-4

alkyloxy, and (3) aryl optionally substituted with 1 to 3 groups selected from halogen, cyano,

10/561.319 Case 21444YP

Case No : Page No.:

nitro, OH, C1-4 alkyloxy, C3-6 cycloalkyl and C1-4 alkyl optionally substituted with 1 to 5

halogen atoms;

Rg is selected from (1) H, (2) C1-4alkyl, (3) aryl, (4) aryl-C1-6alkyl, (5) C(O)2C1-4alkyl and (6)

C(O)C1-4alkyl;

with the proviso that when each occurrence of X, Y and Z is a ring carbon atom, R^{1a} and R^{1b} are each hydrogen or chlorine, and R2a and R2b are each hydrogen, then D is not NHC(O)C1_6alkyl; with the further provise that the following compound is excluded:

- 2. (original) A compound of Claim 1 wherein A is C(O) or O.
- 3. (canceled)
- (original) A compound of Claim 1 wherein each occurrence of Y and Z represents a ring carbon atom, and one X is a ring carbon or nitrogen atom and the others are ring carbon atoms.
 - 5. (canceled)
- (currently amended) A compound of Claim 1 having the formula Ia(1) and pharmaceutically acceptable salts thereof:

Serial No.: Case No.: Page No.: 10/561,319 Case 21444YP

wherein

A is O or C(O);

one of X is a ring carbon or nitrogen atom, and the others are ring carbon atoms;

 $D \text{ is } C(O)R^4, C(O)NR^dR^4 \text{-or } C(O)OR^4;$

 R^{1a} and R^{1b} are independently selected from hydrogen, halogen, C_{1} -4alkyl, cyano, SR^{a} , OR^{a} and CF_{3} ;

R2a and R3a are independently H or halogen;

R⁴ is selected from (1) C₁-4alkyl substituted with one to 5 groups independently selected from halogen, C₃-6 cycloalkyl, NRdRe, NRdC(O)₂Ra, C(O)NRdRe, C(O)ORa, and ORa; (2) C₃-6 cycloalkyl; (3) phenyl; (4) phenyl-C₁-4alkyl; (5) optionally substituted heteroaryl; (6) optionally substituted heteroaryl-C₁-4alkyl; (7) optionally substituted heterocyclyl; and (8) optionally substituted heterocyclyl-C₁-4alkyl; wherein heteroaryl, including as part of heteroarylalkyl, is selected from benzofuranyl, pyrazolof [1,5-a]pyrimidinyl, 1-azaindolizinyl, s-triazolof [1,5-a]pyrimidinyl, thieno[3,2-b]pyridinyl, isoxazolyl, pyrazolyl, pyrimidinyl, benzisoxazolyl, pyridyl, indolyl, benzimidazolyl, benzthiazolyl and imidazo[2,1-b]thiazolyl; heterocyclyl, including as part of heterocyclylalkyl, is selected from morpholinyl, tetrahydropyranyl, tetrahydrofuranyl, pyrrolidinyl, piperidinyl and imidazolidinyl; the substituents for heteroaryl is 1 or 2 groups independently selected from C₁-4alkyl, C₃-6cycloalkyl, and ORa; and the substituents for heterocyclyl is 1 to 3 groups independently selected from oxo and C₁-4alkyl,

Ra and Rd are as defined in Claim 1.

(canceled)

Serial No.: 10/561,319 Case No.: Case 21444YP Page No.: 9

8. (currently amended) A compound of Claim $7\underline{6}$ wherein R^4 is selected from (1) C₁₋₄alkyl substituted with NRdRe or C(O)NRdRe where for both groups R^d and R^e , together with the nitrogen atom to which they are attached, complete an optionally substituted 5-or 6-membered saturated ring having 0 to 1 additional ring heteroatom selected from NRg, O, S and SO₂, and wherein said substituent is 1 or 2 groups independently selected from ORa, halogen, C₁₋₄alkyl and oxo; (2) optionally substituted heteroaryl wherein said heteroaryl is selected from pyrazolyl, isoxazolyl, pyrimidinyl, benzofuranyl, pyrazolo[1,5-a]pyrimidinyl, araindolizinyl, s-triazolo[1,5-a]pyrimidinyl, imidazo[2,1-b]thiazolyl, thieno[3,2-b]pyridinyl, and said substituent is 1 to 3 groups independently selected from furanyl, pyridyl, benzyl, phenyl optionally substituted with halogen, C₁₋₄alkyl, C₃-6cycloalkyl, trifluoromethyl, halogen, and C₁₋₄alkoxy.

(currently amended) A compound of Claim 6-1 having the formula Ia(2) and pharmaceutically acceptable salts thereof:

Ia(2)

wherein D is C(O)NRdR4,-wherein Rd is H and R4 is selected from (1) C1_4alkyl substituted with a group selected from halogen, ORa, CO2Ra, NHCORa, NRdRe and C(O)NRdRe; (2) optionally substituted heteroaryl-C1_4alkyl wherein heteroaryl is selected from azaindolizinyl, imidazolyl, benzimidazolyl, pyrazinyl, pyridyl, indolyl, triazolyl, thiazolyl, imidazo[1,2-a]pyrimidinyl, imidazo[2,1-b]thiazolyl, and pyrazolo[1,5-a]pyrimidinyl; (3) optionally substituted heterocycylyl-C1_4alkyl wherein heterocyclyl is selected from tetrahydropyranyl, tetrahydrofuranyl and dioxanyl; (4) optionally substituted heterocyclyl substituted from pyrrolidinyl and piperidinyl; (5) CO2Ra; (6) C3_6cycloalkyl; and (7) optionally substituted phenyl-C1_4alkyl; or Rd and R4 together with the nitrogen atom to which they are attached complete an optionally substituted 5- or 6-membered saturated ring having 0 to 1 additional ring heteroatom selected from NRB, O, S and SO2, wherein said ring is optionally

10/561,319 Case 21444YP

Case No.: Page No.:

fused to a benzene or a 5- or 6-membered heteroaryl ring, and said substituent is 1 or 2 groups independently selected from ORa, halogen, C1_4alkyl, NRdRe, NRdCO2Ra, and oxo.

10. (original) A compound of Claim 9 wherein R^d is H and H^d is selected from (1) C_{1-4} alkyl substituted with H^d or H^d or H^d , wherein for both groups H^d and H^d together with the nitrogen to which they are attached complete an optionally substituted 5- or 6-membered saturated ring having 0 to 1 additional ring heteroatom selected from H^d , H^d or H^d , and H^d or H^d or

11. (currently amended) A compound of Claim 7-1 having the formula Ia(3) an pharmaceutically acceptable salts thereof:

<u>Ia(3)</u>

wherein D-is C(O)OR4, and R4 is selected from (1) C2.4alkyl substituted with NRdRe or C(O)NRdRe in which, for these two groups, Rd and Re together with the nitrogen atom to which they are attached complete an optionally substituted 5- or 6-membered saturated ring having 0 to 1 additional ring heteroatom selected from NRg, O, S and SO2, and wherein said substituent is 1 or 2 groups independently selected from ORa, halogen, C1.4alkyl and oxo; (2) heterocyclyl-C1-4alkyl optionally substituted with 1 to 3 groups independently selected from C1-4alkyl and oxo, wherein heterocyclyl is selected from tetrahydropyranyl, tetrahydrofuranyl, pyrrolidinyl, morphollinyl, oxazolidinyl, dioxanyl, and dioxolanyl; (3) furanyl-C1-4alkyl; and (4) phenyl-C1-4alkyl.

10/561,319 Case 21444YP

Case No.: C Page No.: 11

12. (canceled)

- 13. (original) A pharmaceutical composition comprising a therapeutically effective amount of a compound of formula I, or a pharmaceutically acceptable salt thereof, and pharmaceutically acceptable excipients.
- 14. (currently amended) Use of a compound of formula I or a pharmaceutically acceptable salt thereof in the manufacture of a medicament useful in A method for the treatment or prevention of diseases or disorders mediated through the bradykinin receptor pathway which comprises administering to a patient in need thereof a compound of formula I or a pharmaceutically acceptable salt thereof.
- 15. (currently amended) The <u>use-method</u> of Claim 14 wherein said disease or disorder is selected from neuropathic pain, acute pain and inflammatory pain.